xc USEPA
xc Rockford
xc Kelly
xc Cindy
then Geordie

LTV Steel Company

October 20, 1989

Ms. Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, IL 62794-9276

Re: 1558010006 - Putnam County
LTV Steel Company, Inc.
ILD 000781591
Hennepin Works/LTV Steel
LID 000781591

Dear Ms. Tin:

This letter is in response to your Compliance Inquiry Letter (CIL) of October 6, 1989 regarding the above-referenced facility.

As required by 35 Illinois Administrative Code (IAC), Section 725.242(b), LTV has adjusted the RCRA facility closure cost estimate and determined the revised (1988) closure cost to be $75,438.00, representing an increase of $2,197 over the 1987 closure cost estimate of $73,241. LTV Steel has initiated action to establish an irrevocable letter of credit in favor of IEPA for the sum of $2,197 and, upon receipt, will promptly forward appropriate copies of all documents to your attention.

Should you require anything additional, please contact me at 216/429-6539.

Sincerely,

R. A. Voytko

R. A. Voytko
Environmental Management Engineer

RAV/dcr/5249a

Attachment

cc: Mr. Andrew Vollmer
IEPA Administrative Compliance Unit
Compliance Section

RECEIVED
OCT 25 1989
IEPA-DLPC

MM

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

217/782-6761

Certified # P 115 235 866

Refer to: 1558010006 - Putnam County
LTV Steel Company
ILD000781591
Compliance File

U.I.C. COMPLIANCE INQUIRY LETTER

October 13, 1989

LTV Steel Company
Attn: P.N. Schlingman
Hennepin Works, Post Office Box 325
Hennepin, Illinois 61327

Dear Mr. Schlingman:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of permit UIC-004-W1-JL and to inquire as to your position with respect to the apparent violations identified in attachment A and your plans to correct these apparent violations.

The Agency's findings of apparent non-compliance in attachment A are based on a October 10, 1989 review of documents submitted to the Agency to demonstrate compliance with the requirements of permit UIC-004-W1-JL.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. These resolution dates are not to exceed 60 days from the date of the above referenced inspection and/or record review. The written response should be sent to the following:

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Further, take notice that non-compliance with the requirements of the Illinois Environmental Protection Act and rules and regulations adopted thereunder may be the subject of enforcement action pursuant to the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec. 1001 et seq.

If you have any questions regarding the above, please contact Geordie Smith at 217/782-6761.

Sincerely,

Angela Aye Tin

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Division of Land Pollution Control

AAT:GDS:sap/3442k,72-73

cc: Division File
Rockford Region
Permit Section
David Retzlaff
Geordie Smith
USEPA Region 5

ATTACHMENT A

1. Pursuant to condition I.B.1.a.i of UIC permit UIC-004-W1-JL, operating requirements, the maximum injection pressure on the waste injection cycle at the wellhead shall not exceed 110 psig. You are in apparent violation of condition I.B.1.a.i since your injection pressure exceeded the maximum pressure allowed by your permit on two occasions during the month of August 1989.

ATT:GDS:sap/3442k,74

mm

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

217/782-6761

Refer to: 1550105001 -- Putnam County
Hennepin/LTV Steel
ILD007815911
Compliance File

COMPLIANCE INQUIRY LETTER

Certified # P115 235 621

October 6, 1989

LTV Steel
Attn: Mr. R.A. Voytko
3100 East 45th Street
Cleveland, OH 44127

Dear Mr. Voytko:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of 35 Ill. Adm. Code Part 725 Subpart H and to inquire as to your position with respect to the apparent violations identified in Attachment A and your plans to correct these apparent violations. The Agency's findings of apparent non-compliance with Subpart H are based on a September 29, 1989 review of documents submitted to the Agency to demonstrate compliance with the requirements of Subpart H.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. The written response, and two copies of all documents submitted in reply to this letter, should be sent to the following:

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Further, take notice that non-compliance with the requirements of the Illinois Environmental Protection Act and rules and regulations adopted thereunder may be the subject of enforcement action pursuant to either the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec. 1001 et seq. or the federal Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sec. 6901 et seq.

If you have any questions regarding the above, please contact Kelly Smith at 217/782-6761.

Sincerely,

Angela Aye Tin

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Division of Land Pollution Control

AAT:KS/mls/3486k/14

cc: Division File
Rockford Region
USEPA Region V
Andrew Vollmer
Kelly Smith
Geordie Smith

ATTACHMENT A

1. Pursuant to 35 Ill. Adm. Code 725.242(b), during the active life of the facility, the owner or operator shall adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with Section 725.243. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Agency as specified in Section 725.243(e)(5). The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business as specified in subsections (b)(1) and (b)(2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

    1. The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

    2. Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

    You are in apparent violation of 35 Ill. Adm. Code 725.242(b) for the following reason(s): Your closure cost estimates have not been adjusted for inflation.

2. Pursuant to 35 Ill. Adm. Code 725.243, an owner or operator of each facility shall establish financial assurance for closure of the facility. The owner or operator shall choose from the options as specified in subsections (a) through (e).

    You are in apparent violation of 35 Ill. Adm. Code 725.243 for the following reason(s): Your letter of credit does not supply adequate funds for closure of your RCRA units.

GS/mls/3486k/16

1/29/89

BEFORE THE ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In the Matter of:	
Bethlehem Steel Corporation Applicant	UIC Appeal Nos. 85-8 & 86-13
UIC Permit Nos. IN-127-1W-001 IN-127-1W-003 IN-127-1W-004	

ORDER DENYING PETITIONS FOR REVIEW

Before me are two petitions filed by Bethlehem Steel Corporation (BSC) under 40 CFR §124.19 requesting review of three Underground Injection Control (UIC) permits issued by Region V under the Safe Drinking Water Act (SDWA), 42 U.S.C.A. §§300f to 300j-11. Two of the permits, Nos. IN-127-1W-003 and -004, were issued together on September 30, 1985. The third, No. IN-127-1W-001, was issued September 30, 1986. All three authorize continued operation of Class I hazardous waste injection wells for disposal of wastewater at BSC's Burns Harbor Plant in Porter County, Indiana. [1]

[1] Class I wells are defined as including those used "to inject hazardous waste beneath the lowermost formation containing, within one-quarter mile of the well bore, an underground source of drinking water." 40 CFR §144.6(a)(1). The UIC regulations define "hazardous waste" by reference to the definition of that term in the regulations that implement the Resource Conservation and Recovery Act, 42 U.S.C.A. §§6901-6991i. See 40 CFR §144.3.

BSC requested review of the first two permits by petition dated November 15, 1985 (UIC Appeal No. 85-8), and of the third by petition dated November 10, 1986 (UIC Appeal No. 86-13). As requested by EPA's Chief Judicial Officer, Region V responded to the petitions. By order dated March 26, 1987, BSC was granted leave to file a reply to EPA's response in UIC Appeal No. 86-13, and it did so on May 15, 1987. Due to the similarity of the issues raised by BSC's petitions, I have consolidated these appeals for unified disposition.

The SDWA and implementing regulations do not provide for automatic administrative review of UIC permit decisions. See 40 CFR §124.19. Generally, petitions for review are not granted unless the permit determination is clearly erroneous (legally or factually) or involves an important policy matter or exercise of discretion. [2/] The preamble to the regulations states that "this power of review should be only sparingly exercised" and that "most permit conditions should be finally determined at the Regional level * * *." 45 Fed. Reg. 33,412 (May 19, 1980). The burden of demonstrating that review should be granted is on the petitioner.

In both petitions, BSC argues that its UIC permits should not include the corrective action requirements imposed under Section 3004(u) of the Resource Conservation and Recovery Act

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[2/] See In re Gelman Science, Inc., UIC Appeal No. 86-14, at 2-5 (Nov. 6, 1987); In re NEA Cross Co., UIC Appeal No. 85-9, at 2-3 (Oct. 10, 1986).

(RCRA), 42 U.S.C.A. §6924(u). In UIC Appeal No. 85-8, BSC also challenges permit terms incorporating certain RCRA general facility and post-closure standards. These matters raise issues regarding the relationship between RCRA, the SDWA, and the Clean Water Act, 33 U.S.C.A §§1251-1387. For the reasons set forth below, BSC has failed to show that the Region's permit decision is clearly erroneous or otherwise warrants review. 3/

Statutory and Regulatory Background

Because this case involves the interrelationship of three major environmental statutes, a brief description of each is in order.

The Clean Water Act: In 1972, Congress established the basic framework for federal water pollution regulation by enacting the Federal Water Pollution Control Act, later renamed the Clean Water Act (CWA). The CWA prohibits the "discharge" of a pollutant into the waters of the United States unless made under a nationwide permit program known as the National Pollutant Discharge Elimination System (NPDES). Id. §§1311(a), 1342. EPA may issue NPDES permits itself or authorize a state to issue permits

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3/ BSC's petition in UIC Appeal No. 85-8 challenged several other permit conditions, but after an exchange of correspondence with EPA, BSC limited its request for review to the issues identified above. See Letter from R. Penny (BSC) to C. Sutfin (U.S. EPA Region V) (Apr. 25, 1986); Letter from R. Penny (BSC) to R. McCallum (U.S. EPA) (Apr. 25, 1986); Letter from R. Penny (BSC) to R. McCallum (U.S. EPA) (Feb. 10, 1986); Letter from C. Sutfin (U.S. EPA Region V) to R. Penny (BSC) (Jan. 27, 1986).

if the state's program meets certain statutory requirements. Id. §1342.

One of the requirements for an authorized state NPDES program is the control of "the disposal of pollutants into wells." Id. §1342(b)(1)(D). EPA does not, however, consider well injection to be a "discharge" and has never asserted wholesale jurisdiction over well injection under the CWA. Initially, EPA issued NPDES permits covering well injection only when such injection was an adjunct to surface water discharges. See Decision of the General Counsel No. 6 (April 8, 1975). As explained by the General Counsel in 1973,

> Jurisdiction over a permittee is based upon §301 of the Act, which provides that the "discharge of a pollutant" is unlawful except as in compliance with the regulatory provisions of the Act. Section 402 authorizes the Administrator to issue a permit "for the discharge of a pollutant." Under §502(12) the term "discharge of a pollutant" is defined so as to include only discharges into navigable waters (or the contiguous zone or the ocean). Discharges into ground waters are not included. Accordingly, permits may not be issued, and no application is required, unless a discharge into navigable waters is proposed or is occurring.
>
> Section 125.26(a) of the NPDES regulations requires the Regional Administrator to formulate and apply permit conditions to prevent pollution of surface and underground water resources whenever disposal into wells is contemplated as part of a program to comply with effluent limitations and other requirements in an NPDES permit. This provision cannot, of course, extend EPA's jurisdiction to cover disposal into wells not in connection with discharges into navigable waters. However, whenever a permit is issued for a discharge into navigable waters, §125.26(a) requires controls to be applied to associated discharges into wells.

OGC Memorandum (December 13, 1973) (Attachment to OGC Decision No. 6).

In 1977 a federal appeals court held that EPA has no authority under the CWA to regulate well injection to subsurface waters with no direct hydrologic connection to surface waters. See Exxon Corp. v. Train, 554 F.2d 1310, 1317-31 (5th Cir. 1977). [4/] Although another federal appeals court disagreed, see U.S. Steel Corp. v. Train, 556 F.2d 822 (7th Cir. 1977), consistent with Exxon EPA now declines to exercise CWA jurisdiction over injection wells (except those that inject into groundwater with a physically and temporally direct hydrologic connection to surface water). Instead, EPA now regulates such well injection under the SDWA. [5/] To remain authorized, however, a state NPDES program must continue to "control the disposal of pollutants into wells" as required by 33 U.S.C.A. §1342(b)(1)(D).

The Safe Drinking Water Act: In 1974, the Congress passed the SDWA to protect drinking water sources from, among other things, contamination by underground well injection. The Act's

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[4/] The Fifth Circuit did not address the issue of whether the CWA authorizes jurisdiction over discharges into groundwater that has a direct hydrologic connection to surface waters:

> Specifically, EPA has not argued that the wastes disposed of into wells here do, or might, "migrate" from groundwaters back into surface waters that concededly are within its regulatory jurisdiction. * * * We mean to express no opinion on what the result would be if that were the state of facts.

554 F.2d at 1312 n.1.

[5/] Although EPA adjusts the NPDES limits for surface water discharges to reflect the extent of well disposal (40 CFR §122.50), it no longer regulates well disposal into isolated groundwater under the CWA. See 44 Fed. Reg. 32,870 (June 7, 1979).

legislative history suggests that it was enacted due to EPA's limited authority to regulate well injection under the CWA. See H.R. Rep. 1185, 93d Cong., 2d Sess. 4, reprinted in 1974 U.S. Code Cong. & Admin. News 6454, 6457. The SDWA directs EPA to promulgate regulations for the approval of state UIC programs. 42 U.S.C.A. §300h. EPA administers the UIC program in any state without an approved program. Id. §300h-1(c).

The Resource Conservation and Recovery Act: In 1976, Congress enacted RCRA, the first comprehensive federal control of hazardous waste. It provides for cradle-to-grave management of hazardous waste through the RCRA permitting system, which applies to all facilities that treat, store, or dispose of hazardous waste. 42 U.S.C.A. §6925(a). As with the CWA and the SDWA, EPA may authorize a state to administer its own RCRA program. Id. §6926(b). In 1984, RCRA was amended to add RCRA §3004(u), which requires "corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit under this subchapter, regardless of the time at which waste was placed in such unit." Id. §6924(u); see also 40 CFR §264.101 (implementing RCRA §3004(u)).

Under the Agency's regulations, wells used to dispose of hazardous waste are subject to regulation under both the UIC and RCRA programs. To streamline paperwork requirements, EPA allows a UIC permittee to qualify for a RCRA permit-by-rule, rather than undergoing the formal RCRA application process. See 40 CFR

§270.60(b); 45 Fed. Reg. 33,335 (May 19, 1980). For UIC permits for Class I hazardous waste wells issued after November 8, 1984 (the date RCRA §3004(u) was added), one condition for obtaining a RCRA permit-by-rule is compliance with the corrective action requirements of RCRA §3004(u). See 40 CFR §270.60(b)(3).

Factual Background

In 1974 (prior to the Exxon decision), EPA issued an NPDES permit to BSC, regulating both the surface water discharges and associated well injections at its Burns Harbor Plant. In January 1975, EPA authorized Indiana to issue NPDES permits under the CWA. Indiana renewed BSC's permit in 1979 under its authorized NPDES program, continuing to regulate BSC's wells under authority conferred by state law.

Indiana has never obtained authority to administer a UIC program under the SDWA. The UIC permits issued here were prepared by U.S. EPA, Region V, and require BSC to comply with the corrective action requirements of RCRA §3004(u).

ANALYSIS

I. The Applicability of RCRA

BSC requests deletion of all RCRA regulatory requirements from its UIC permits because, in its view, it is not injecting hazardous waste into its wells. Under RCRA, "hazardous waste" is a particular kind of solid waste. 42 U.S.C.A. §6903(5). The statutory definition of "solid waste" excludes "solid or dissolved materials in * * * industrial discharges which are

point sources subject to [NPDES] permits under [CWA §402] * * *." Id. §6903(27). BSC claims the benefits of this exclusion because it has an NPDES permit that covers its well injection activities. BSC believes that its NPDES permit is sufficient to remove its wells from jurisdiction under RCRA. I disagree.

The exclusion extends only to materials in "discharges" subject to permits under CWA §402. The meaning of the term "discharge" is the linchpin for understanding the CWA as a whole. [6/] As noted above (pp. 4-5), although EPA previously exercised authority over UIC wells under the CWA, EPA has never considered well injection to isolated groundwaters to be a "discharge" under CWA §402. Most courts that have directly addressed the issue agree. See Exxon Corp., 554 F.2d at 1317-31; Kelley v. United States, 618 F. Supp. 1103, 1104-07 (W.D. Mich. 1985); United States v. GAF Corp., 389 F.Supp. 1379, 1383-85 (S.D. Tex. 1975). An examination of the text of the CWA demonstrates the soundness of these decisions.

[6/] See H.R. Rep. 911, 92d Cong., 2d Sess. 125 (1972) ("it is extremely important to an understanding of [CWA §402] to know the definition of the various terms used and a careful reading of the definitions in section 502 is recommended. Of particular significance is [sic] the words 'discharge of pollutants.'")

BSC has submitted portions of its NPDES permit authorizing injection into the wells at issue here. Although this permit refers to BSC's well injections as "discharges," this loose reference has no bearing on the meaning of that word as used in CWA §402.

The CWA defines "discharge" in relevant part as the addition of any pollutant into "navigable waters". [7] The term "navigable waters" is defined as "waters of the United States" (33 U.S.C.A. §1362(7)) and goes beyond traditional notions of navigability, [8] but it is not unlimited. BSC is obviously not injecting waste directly into surface water through its injection wells. Nor does BSC contend that it is injecting waste into groundwater. Even assuming arguendo that it is, however, well injections into isolated groundwater do not constitute "discharges" under the CWA. [9] Many provisions of the CWA expressly refer to both "ground waters" and "navigable waters." For example, CWA §§102(a) and 104(a)(5) direct EPA to develop programs to monitor

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[7] The statutory definition of "discharge," although somewhat circuitous, is ultimately clear. Under CWA §502(16), "[t]he term 'discharge' when used without qualification includes a discharge of a pollutant, and a discharge of pollutants." 33 U.S.C.A. §1362(16). The terms "discharge of a pollutant" and "discharge of pollutants" are defined in relevant part as "any addition of any pollutant to navigable waters from any point source * * *." Id. §1362(12)(A). The phrase "'navigable waters' means the waters of the United States, including the territorial seas." Id. §1362(7).

Although not directly relevant here, the term "discharge of a pollutant" also includes the "addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." Id. §1362(12)(B).

[8] See, e.g., GAF Corp., 389 F. Supp. at 1383 (citing cases).

[9] BSC does not allege in its Petition that its wells inject waste into groundwater with a direct hydrologic connection to surface water. Today's decision should not be read to suggest that waste disposal into such groundwater may never be a "discharge" under CWA §402.

and eliminate the pollution of "the navigable waters and ground waters." 33 U.S.C.A. §§1252(a) and 1254(a)(5). Section 106(e)(1) prohibits certain grants to states that fail to monitor "the quality of navigable waters and to the extent practicable, ground waters." Id. §1256(e)(1). Section 304(a)(2)(A) requires EPA to publish information on the integrity "of all navigable waters, ground waters, waters of the contiguous zone, and the oceans." Id. §1314(a)(2)(A). If groundwater were within the meaning of "navigable waters," the specific references to groundwater in these provisions would be redundant. A better interpretation of the CWA, one which gives meaning and effect to every term, [10] is to view groundwater as outside the scope of "navigable waters." Because a "discharge" is the addition of a pollutant to "navigable waters," well injection into isolated groundwater cannot be a "discharge" under the CWA. [11]

Further light is shed on the issue by CWA §402 itself. Section 402 uses the word "discharge" (or forms thereof) numerous times. The sole reference to well injection in CWA §402, however, does not use the term "discharge," but instead refers to

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[10] See, e.g., Reiter v. Sonotone Corp., 442 U.S. 330, 339 (1979) ("In construing a statute we are obliged to give effect, if possible, to every word Congress used."); United States v Menasche, 348 U.S. 528, 538-39 (1955) (same).

[11] See Kelley, 618 F.Supp. at 1104-07. Sometimes the distinction between groundwater and surface water is elusive. See United States v. Weisman, 489 F. Supp. 1331, 1347 (M.D. Fla. 1980). It is unnecessary to address the precise boundaries of these terms in this case.

"the disposal of pollutants into wells." 33 U.S.C.A. §1342(b)(1)(D) (emphasis added). Section 304(f) likewise refers to "the disposal of pollutants in wells or in subsurface excavations." Id. §1314(f)(2)(D). The use of the word "disposal" to describe well injection, despite the consistent use of the word "discharge" elsewhere in CWA §402, indicates that the terms have different meanings, and that well injection into isolated groundwater is something other than a "discharge." [12/] There is no evidence that the use of both "discharge" and "disposal" was the result of carelessness, or that these terms are used interchangeably throughout the CWA. Indeed, to interpret the words as synonymous would defeat the effect of the express definition of "discharge" in CWA §502, which establishes that word as a term of art.

Other portions of the CWA likewise distinguish between "discharge" and "disposal." For example, Section 201(b) states that

> [w]aste treatment management plans and practices shall provide for the application of the best practicable waste treatment technology before any discharge into receiving waters, including reclaiming and recycling of water, and confined disposal of pollutants so they will not migrate to cause water or other environmental pollution * * *.

33 U.S.C.A. §1281(b) (emphasis added). The words "confined disposal" here describe the placement of waste as an alternative

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[12/] See, e.g., Tafoya v. U.S. Dep't of Justice, LEAA, 748 F.2d 1389, 1391-92 (10th Cir. 1984) (use of different terms within statute evidences intentional differentiation); Lankford v. Law Enforcement Assistance Administration, 620 F.2d 35, 36 (4th Cir. 1980) (same); United States v. Wong Kim Bo, 472 F.2d 720, 722 (5th Cir. 1972) (same).

to "discharges" into surface water subject to permits under the CWA.

This textual analysis of the CWA and the federal court decisions cited above show that well injections to isolated groundwaters are not "discharges" under CWA §402. Thus, these well injections do not fall within the exclusion from the definition of solid waste in RCRA §1004(27). BSC's contention to the contrary collides head-on not only with the meaning of the word "discharge," but also with basic policies and legal principles that flow directly from the statutes at issue. If well injection were a "discharge," no well would ever be subject to regulation under RCRA no matter how toxic the waste. [13/] RCRA itself, however, makes crystal clear that its provisions extend to injection wells. RCRA §3004(f), for example, expressly requires EPA to regulate the underground injection of certain hazardous wastes into deep injection wells. See 42 U.S.C.A. §6924(f). Another section prohibits hazardous waste injection into or above certain formations. See id. §6939b. These two provisions, both added by the 1984 amendments to RCRA, reflect the bedrock congressional policy and consistent Agency position that the RCRA regulatory program applies to injection wells used to inject hazardous waste. See 52 Fed. Reg. 45,792-93

[13/] BSC argues that RCRA is inapplicable to wells covered by an existing NPDES permit, as well as those subject to any future NPDES permits. BSC Reply at 20. Because well injection is a "discharge" under BSC's theory, this alleged exclusion from RCRA would cover virtually every UIC well.

(December 1, 1987); 50 Fed. Reg. 28,712 (July 15, 1985). If well injections were excluded from the definitions of "solid waste" and "hazardous waste" under RCRA, as BSC argues, these key RCRA provisions would be rendered meaningless nullities.

Finally, BSC's reliance on the Seventh Circuit's decision in U.S. Steel Corp. v. Train, 556 F.2d 822 (7th Cir. 1977), is misplaced. There, the court held that waste injected into wells is a "pollutant" subject to regulation under the CWA, but it did not decide the precise issue presented here, i.e., whether well injections are "discharges" subject to permits under the CWA, and thus excluded from regulation under RCRA. Id. at 851-53. Although the court loosely used the word "discharge" (rather than "disposal") to describe well injection (id. at 852), its reliance on the position of EPA's General Counsel (id. at 852 n.61) undercuts any suggestion that it deemed well injections to be "discharges" as defined in CWA §502(16). [14] In view of the sweeping statutory and regulatory changes since that decision, particularly the 1984 amendments to RCRA, I doubt that a court

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[14] As noted above, EPA did not justify this jurisdiction by arguing that well injection is a "discharge" under the CWA. Instead, it based its position on 33 U.S.C.A. §1342(a)(3), which requires the federal NPDES program to be subject to the same terms and conditions as the approved state programs, and on Section 1342(b)(1)(D), which requires an authorized state program to control well disposal. See U.S. Steel Corp., 556 F.2d at 851-53; see also Exxon Corp., 554 F.2d at 1318-19. The federal courts disagreed as to whether the CWA grants EPA authority over injection wells. Compare U.S. Steel Corp., 556 F.2d at 851-53 with Exxon Corp., 554 F.2d at 1317-31. EPA no longer asserts CWA authority over injection into isolated groundwater, but instead regulates these wells under the SDWA and RCRA §§3004(f) and (k), which expressly grant EPA regulatory authority over wells.

would rely on U.S. Steel Corp. today to hold that BSC's wells are beyond the reach of protective regulation under RCRA.

II. The Applicability of the Corrective Action Requirements of RCRA §3004(u)

Having established that RCRA generally applies to UIC wells, the next issue is whether the specific corrective action requirements of RCRA §3004(u) apply. As noted above, UIC permittees of hazardous waste disposal wells need not go through the formal RCRA permit application process. Instead, UIC permittees may qualify for a RCRA permit-by-rule under 40 CFR §270.60(b). For UIC permits for Class I hazardous waste wells issued after November 8, 1984, one requirement for obtaining a RCRA permit-by-rule is compliance with 40 CFR §264.101, which incorporates the statutory corrective action requirements of RCRA §3004(u). See 40 CFR §270.60(b)(3).

BSC contends that RCRA §3004(u) by its terms applies only to "issued" RCRA permits, and that BSC's RCRA permit-by-rule has not been "issued" within the meaning of that section. The distinction between permits-by-rule and those acquired by formal application, however, appears only in the implementing regulations, not in the statute itself. The word "issued" in RCRA §3004(u) and elsewhere in the statute plainly encompasses both kinds of permits. The natural import of the word is "to cause to come forth"

or "to put forth." [15] The Agency issues RCRA permits-by-rule by operation of its regulations just as it issues RCRA permits in response to formal applications. Only this reading of the word "issued" in RCRA §3004(u) is consistent with RCRA §3005(a), which directs EPA to require each person owning or operating a hazardous waste facility "to have a permit issued pursuant to this section." 42 U.S.C.A. §6925(a) (emphasis added). If BSC's permit-by-rule were not "issued" within the meaning of RCRA, the regulations authorizing permits-by-rule (as well as BSC's facility) would not be in compliance with RCRA §3005(a). [16]

BSC also argues that RCRA §3004(u) on its face applies only to a facility "seeking a [RCRA] permit." In UIC Appeal No. 85-8, BSC contends that it is not "seeking a [RCRA] permit" because its discharges are excluded from the definition of "solid waste." As

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[15] See The American Heritage Dictionary 680 (1982); Webster's Third New International Dictionary (unabridged) 1201 (1967).

[16] BSC relies on an assertion by the Agency in 1980 that "RCRA permits will not be issued for UIC wells injecting hazardous wastes." BSC Reply at 12 (quoting 45 Fed. Reg. 33,326 (May 19, 1980)). This statement was not, however, an interpretation of RCRA §§3004(u) or 3005. The context makes clear that the word "issued" was being used, not in its broad statutory sense, but simply to describe permits obtained through the formal application process (as opposed to permits-by-rule). Id. Moreover, even if BSC's reading of this statement were correct, the 1984 amendments to RCRA make clear that the RCRA permit program applies to UIC wells used to inject hazardous waste. BSC also cites an Agency interpretation of §3004(u) as applying only to facilities required "to obtain a Subtitle C [RCRA §3005] permit." BSC Reply at 13 (citing 50 Fed. Reg. 28,711-12 (July 15, 1985)). As explained above, however, BSC's RCRA permit-by-rule is a RCRA Subtitle C permit.

shown above in Section I, however, this assertion is incorrect. In UIC Appeal No. 86-13, BSC states the argument somewhat differently; it contends that its ability to obtain a RCRA permit-by-rule does not transform it into one "seeking a [RCRA] permit." BSC appears to interpret the phrase "seeking a [RCRA] permit" to require a specific subjective intent or desire on its part before Section 3004(u) applies. This is not the case. Despite BSC's insistence that it seeks only a UIC permit under the SDWA, RCRA §3005(a) requires the Agency's rules to compel BSC to obtain a RCRA permit, and the RCRA regulations do so. [17/] A RCRA permit-by-rule is merely one kind of authorization by which BSC is allowed to comply with RCRA. In other words, because BSC seeks authorization to inject hazardous waste into its wells, by necessity it seeks both a UIC permit and a RCRA permit. Its ability to obtain authorization through a RCRA permit-by-rule serves only to streamline its paperwork requirements, not to dilute its substantive obligations under RCRA and the regulations implementing that statute. See 52 Fed. Reg. 45,792-93 (December 1, 1987).

In its reply brief in UIC Appeal No. 86-13, BSC relies on 40 CFR §264.1(d), which states that the Part 264 RCRA standards apply to UIC permittees "only to the extent they are required by [40 CFR §144.14]." Because Section 144.14 does not mention the

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[17/] Injection wells that dispose of hazardous waste are specifically included among those facilities that must have a RCRA permit. 40 CFR §270.1(c)(1)(i).

RCRA corrective action requirements, BSC argues that these requirements cannot be imposed through a UIC permit. BSC has identified an apparent error in the rules. Despite the limitation set forth in Section 264.1(d), Section 270.60(b)(3) expressly requires the owner or operator of a hazardous waste injection well to comply with the RCRA corrective action requirements to qualify for a RCRA permit-by-rule. [18/] The apparent conflict must be resolved in favor of requiring compliance for two reasons. First, RCRA §3004(u) unequivocally requires all RCRA permits issued after November 8, 1984, (whether by formal application or by rule) to impose corrective action requirements under that section. Any conflict between this statutory command and the regulations (40 CFR §§144.14 and 264.1(d)) must be resolved in favor of the statute. Second, as a practical matter, BSC's resolution of the regulatory conflict in favor of non-compliance would leave it without any authorization under RCRA

[18/] As noted above, 40 CFR §270.60(b)(3) conditions eligibility for a RCRA permit-by-rule on compliance with 40 CFR §264.101, which incorporates the RCRA corrective action requirements into the rules. The Agency promulgated Section 270.60(b)(3) after Section 264.1(d). Compare 50 Fed. Reg. 28,752 (July 15, 1985) with 45 Fed. Reg. 33,221 (May 19, 1980). Section 270.60(b)(3) therefore represents the most recent expression of the Agency's position on the requirements for a RCRA permit-by-rule.

(by rule or by permit obtained through the formal application process) to dispose of its hazardous waste. 19/

Finally, BSC argues that RCRA corrective action requirements are unnecessary and redundant because the UIC regulations contain corrective action requirements. Unlike the comprehensive requirements of RCRA §3004(u), which call for corrective action for all hazardous waste releases from a solid waste management unit regardless of when the waste was placed in the unit, the UIC regulations compel corrective action only where certain existing wells are "improperly sealed, completed, or abandoned" and only as necessary "to prevent movement of fluid into underground sources of drinking water." See 40 CFR §144.55. The short answer to BSC's contention is that Congress has directed that more extensive requirements be imposed under RCRA §3004(u) where a UIC well is used to dispose of hazardous waste.

III. The Imposition of the RCRA General Facility and Post-closure Standards

The permit at issue in UIC Appeal No. 85-8 includes terms incorporating various general facility and post-closure standards under Part 264 of the RCRA regulations. BSC objects to these conditions based on 40 CFR §264.1(d), which (as noted above) states that the Part 264 RCRA standards apply to UIC permittees

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19/ By copy of this order, I am directing the Acting Assistant Administrator for Water and the Assistant Administrator for Solid Waste and Emergency Response to propose revisions to the regulations to eliminate the inconsistency described above.

"only to the extent they are required by [40 CFR §144.14]." In turn, Section 144.14 applies only to well injection of hazardous waste "accompanied by a manifest." BSC contends that Section 144.14 is inapplicable because BSC is not required to manifest the waste injected into its wells.

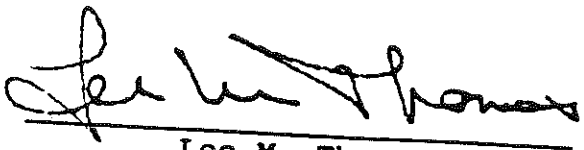
Region V correctly responds that the contested provisions are authorized by Sections 144.52(a)(9) and (b)(1) of the UIC regulations, which state that UIC permits shall include "on a case-by-case basis such additional conditions as are necessary to prevent the migration of fluids into underground sources of drinking water" and "to provide for and assure compliance with all applicable requirements of the SDWA and Parts 144, 145, 146 and 124 [of the UIC regulations.]" These provisions provide sufficient legal authority for imposing the conditions at issue. Sections 144.14 and 264.1(d) were promulgated to streamline the regulation of wells under both the RCRA and UIC programs. They do not diminish the obligation and authority of permit writers under Section 144.52 to ensure, through additional conditions, that UIC wells do not contaminate underground sources of drinking water or otherwise contravene the requirements of the SDWA and its implementing regulations.

Conclusion

For the reasons set forth above, BSC's petitions for review are denied.

So ordered.

Dated: JAN 19 1989



Lee M. Thomas
Administrator

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Facility Inspection Form for Compliance
with Underground Injection Control Requirements
(Permit and Inspection Fee Form)

Facility Name: LTV STEEL CO
IEPA File Heading: LTV STEEL

Facility Address. Hennepin Works
P.O. Box 325
Hennepin, IL 61327

IEPA I.D. Number: L5582100006
County: Putnam
U.S. EPA I.D. No.: ILD000781591

Facility Contact: Paul Schlingman
Inspector(s) Name: David S. Relelall

Title: General Supervisor - Operations Support Services

Well Name: WDW-1
Date of Inspection: 3/13/89

1. Well Classification

Time (From) 10:00am (To) 10:50am

	Haz.	NH
Class I	✓	✓	—
Class II			
Class III			
Class IV			
Class V			

Comments:

2. Authorization

IEPA Permit:	✓	Permit Number: UIC-004-WI-IL
Authorization By Rule:		
Emergency Permit:		Permit Number:
Other:		

3. Operational Status

Operating:	✓
Standby:	
Inoperable:	

Comments:

RECEIVED
MAR 16 1989
IEPA-DLPC

IL 532-1926
LPC 215 11/85

Remarks: On March 13 1989 a quarterly PIF inspection was conducted at LTV Steel in Hennepin. I met with Paul Schlagman in his office. We briefly discussed current well operation before proceeding to the well.

One of the filters is still down.

All gauges and recorders were working, putting permit limits.

c. c. Region 1
John Richardson

DH:bls/0070E,sd

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

217/782-9720

LTV Steel STP
NPDES Permit No. IL0002631
Report of Compliance Sampling

February 16, 1989

Mr. Cal Baxter
LTV Steel
Hennepin, Illinois 62327

Dear Mr. Baxter:

On December 7, 1988, an NPDES Compliance Sampling Inspection was conducted at the subject facility by personnel from the Rockford Regional Office. From the report supplied by the field inspector, it was noted that proper operation and maintenance was being provided.

This Agency would like to commend the operating staff for their efforts. Should any questions arise pertaining to this letter, please direct them to me at the above-indicated telephone number.

Sincerely,

Jan Hopper

Jan Hopper
Compliance Monitoring Unit
Division of Water Pollution Control

JH:bab

cc: Compliance Assurance Section
Records Unit
FOS, Region 1

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6761

Refer to: 1558010006 -- Putnam County
Hennepin/LTV Steel Co.
ILD 000781591
UIC No Migration Petition - USEPA Land Ban

December 23, 1988

USEPA, Region V
Attention: George Hudak
UIC Section, Water Division 5WD-TUB
230 South Dearborn Street
Chicago, IL 60604

Dear Mr. Hudak:

The Illinois Environmental Protection Agency (IEPA), in conjunction with the Illinois State Geological Survey (ISGS), has completed its review of the Land Ban Petition submitted on behalf of LTV Steel Company by Golden Strata Services. The IEPA's comments can be found in Attachment A of this letter and the comments compiled by the ISGS, entitled "Comments Regarding Land Ban Petition for LTV Steel Company, Hennepin, IL," comprise Attachment B.

The lead reviewer at IEPA is John Richardson and review assistance was provided by Jill Withers and Doug Clay. The ISGS reviewer is Ed Mehnert.

Due to contractual difficulties and policies of the Illinois State Water Survey, comments from them have not been received to date. They will be forwarded directly to you.

The ISGS posed questions to the IEPA. Since USEPA is responsible for the final review of the petition, we, at IEPA, direct those questions to USEPA.

This letter and attachments document, in writing, the information sent to you in Word Perfect format.

If you have any questions, please contact Ed Bakowski or John Richardson at 217/782-6761.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:JPR:ct/4012j,spl-2

Attachments

cc: Division File
Rockford Region
John Richardson
Ed Bakowski
Doug Clay
Jill Withers
Tom Cavanagh
ISGS - Ed Mehnert
ISWS - John Nealon

Attachment A

1. Vol. 1, page 2: The Well Location was given as 390' from south line and 791' from west line; however, the location was given as 390' north and 191' west of the SE corner of the SW quarter of the SW quarter in Vol. 1, page 3-1.

2. There is no signed Certification of Petition Information.

3. The depth to the top of the Mt. Simon does not correspond to the depth which can be calculated by summing the thicknesses of each unit above it. The calculated value is 3,000 feet and the depth in Vol. 2, Figure 1-1, is 3100 feet.

4. Vol. 1, page 2-2: the petitioner injects D002 waste (pH $<$ 2), as well as K062 (Waste Pickle Liquor). D002 was not identified as part of the wastestream.

5. Initial Completion Stimulation: Was the well stimulated upon completion? If so, indicate the type of stimulation that was used, along with pressures and volumes of fluids must be provided. Also, the effects of stimulation upon the injection and confining formations must be addressed.

6. Vol. 1, Figure 5-15: Is the map in Figure 5-15 taken from a published document? If so, what is the source, when was it published, and what was the distance to the nearest event?

7. Vol. 1, page 8-4: The petition states the model was constructed with seven layers, but only five were identified. Figure 8-1 in Vol. 2 shows eight layers.

8. Vol. 1, page 8-13: Explain why the viscosity of the waste is assumed to be the same as the viscosity of the formation fluid. In Vol. 1, page 6-2, the viscosities were given as 1.87 and 0.8 centipoise, respectively.

9. Vol. 1, page 8-27: Why is the formation fluid density estimated no more accurately than $\pm$ 50%?

10. Vol. 1, page 8-29: Why are the lateral and vertical permeabilities provided no more than $\pm$ 100% accurate?

11. Vol. 1, page 8-32: Explain why a reference is made to "injection zone" shales at + 2826 feet, a depth which corresponds to the center of the confining zone.

12. Vol. 1, page 10-8: Wastestream Compatability. The special core flow analyses did not appear to have been conducted with waste pickle liquor. What fluid was used for those tests? The test, referenced in Appendix 5-III, was conducted for the freshwater annulus flush - not compatability.

13. Vol. 3, page 3: The petition indicates there are 729 feet of overburden between the top of the injection interval and the bottom of the USDW. Calculations from the data provided indicate there are 597 ft.

14. Vol. 3, pages 4 and 9: The Petition indicates that, after injection ceases, pressure gradients will become negative, redirecting transport back into the injection interval. Does this mean waste will move downard? Explain how this can occur, given the higher hydraulic head of the Mt. Simon?

15. Vol. 3, page 6: Justify why the vertical waste movement into the overlying shale can be taken to be 2 ft. for the historical period (19 years) when Figure 6 shows the position of the pH = 2 contour (based on a pH of 0 for injected waste) at 1.5 ft. into the overlying shale after 680 days of simulated injection.

16. Vol. 1, page 5-23: What are the TDS contents for the lowermost USDW (Franconia), the confining zone (Eau Claire), and the injection zone/ injection interval (Mt. Simon and Elmhurst)?

17. Vol. 3, page 5: Why are the viscosity, TDS and specific gravity of the waste estimated using a constituent-analysis technique when these parameters are measured each month, as a permit requirement?

18. Vol. 1, page 6-4:

    a) What porosity value was used for the confining zone in the model?

    b) What is the compressibility of the confining zone material? What value was used in the model?

    c) What confining zone thickness was used in the model?

    d) What is the storage coefficient of the confining zone? What value was used in the model?

19. Vol. 1, page 6-2:

    a) What is the compressibility of the injection zone material? What value is used in the model?

    b) What is the storage coefficient of the injection zone? What value is used in the model?

20. Vol. 1, page 6-2: The petition needs to include information on the following formation fluid characteristics:

    a) pH

    b) temperature

c) TDS

d) TSS

e) common cations and anions, such as Na, Ca, Mg, Ba, Fe, Zn, Cl, SO_4, SO_2, CO_3, and HCO_3

21. Vol. 1, page 6-2: what are the TDS and TSS values for the injected waste? (Also see #17)

22. Vol. 1, page 10-8: The petition needs to include information on compatability test results between the injected waste and the following:

    a) injection zone rock matrix

    b) confining zone rock matrix

    c) injection zone fluids

    d) confining zone fluids.

    This should include the type of test, temperature parameters, pressure parameters, the date, and the results.

23. Vol. 1, page 10-8: The petition does not contain adequate information to describe the chemical/physical characteristics of the injected waste.

24. Vol. 3, page 3: The petition does not specify the exact portions of the injection zone which comprise the assumed net thickness of 40 feet which is accepting fluid.

JR:ct/4012j,spl-5

COMMENTS REGARDING LAND BAN PETITION FOR LTV STEEL COMPANY, HENNEPIN, IL

The following comments are organized into general comments pertaining to the overall document, specific comments referenced to the document page number, and non-fatal comments also referenced by page number. The non-fatal comments do not impact approval of the petition, but should be addressed for completeness and clarity of the document. Non-fatal comments are denoted by an asterisk(*) following the page number.

GENERAL COMMENTS

1) All references cited should be furnished. It may be best to include one reference section at the end of the document.

2) The majority of the comments require clarification of wording in the document or providing additional supporting information/data. Sections of the document which require attention include model application, model calibration, and input data for the model.

SPECIFIC COMMENTS

Page No.	Comment
1-3*	Referenced facility name is incorrect.
Figure 1-1	The range of permeability values for the Mt. Simon listed on this figure does not match the values listed in Appendix 5, Volume II.
2-2	Need historical characterization of waste for model input.
2-4 & 7-2	Identify the starting date for volume of injected fluid. Also, identify if this volume includes waste, blow-down water, and/or fresh water flushes. The volume should include all fluid injected into the Mt. Simon.
4-7	Provide additional data for the DST-- when was it run, what interval was tested, etc.
4-9*	What data are available to show that the water table, as defined as the top of the zone of saturation, is 75 feet below the ground surface? In most of Illinois, the depth below ground surface to the water table is 3 to 10 feet. The 75 foot depth may be the potentiometric surface of a deeper aquifer.
4-10*	The number of penetrations in the first paragraph do not match the number of wells listed in the same paragraph. Compare the TDS estimates from electric log interpretation with any water quality data available from DSTs or other sources. Also, explain any discrepancies between the estimates and field data.

Page No.	Comment
4-15	Need to provide references for all references cited in the chapter.
5-4*	In Putnam County, pre-Illinoian, Illinoian, as well as Wisconsinan deposits overly the bedrock materials.
5-7*	Please note that the Sandwich Fault is upthrown to the northeast on its southeastern end.
5-11*	The proper reference for defining the Mt. Simon Aquifer to include the Mt. Simon Sandstone and the Elmhurst Sandstone is Suter et al., ISWS/ISGS Cooperative Ground-Water Report 1. Is the description of the Eau Claire site specific or general? If general, this description is not consistent with description in ISGS Bulletin 95.
5-14	Were the upper members of the Eau Claire (Lombard and Provisio) identified at the site? What are their lithologies and thicknesses? What was distinguished based on dolomite content? The Ironton from the Galesville? The Ironton-Galesville from the Provisio?
5-22	The injection interval is defined as the geologic layers actively receiving waste. Depths given for the injection interval are 3109 to 4843 feet. However, on page 6-2, it is stated that only 40 feet accept waste. Please clarify and indicate the elevation of the zone or zones accepting fluid.
5-27	Identify whether these are horizontal or vertical permeabilities. The Ironton is identified as being "tight", please provide data to support this claim.
Fig 5-15	Draw circle with 50 km radius or provide scale.
5-36	Give direction of groundwater gradient.
6-2	Are the values listed here typical, average or some other values? Also, do they pertain to the 40 foot section receiving waste or to the formation from 3109 to 4843? Sources of data and corrections used must be provided or properly referenced. Specific comments follow: Net thickness receiving waste-- which MITs were used to identify this thickness? Porosity-- were logs calibrated with core values? Dispersivity-- justify use of these values. Specific gravity-- formation fluid data obtained from DST sample? How does formation specific gravity vary with depth? Compressibility-- does pore volume mean formation? Gradient-- vertical or horizontal? give direction.

Page No.	Comment
7-1	Since surface pressure was used to calibrate the model, the input parameters pertinent to head loss in tubing and well bore must be given and justified.
7-7	The high value for average monthly volume seems too low. Dividing the cumulative volume injected by the number of months operated gives approximately 600,000 gallons/month, which is greater than the high value given.
8-4	Seven layers were modeled, but only five units are described. What are the other two units?
8-7	You indicate that ignoring flow into the Granville Basin is considered conservative. This argument assumes that the waste is denser than any fluid contained in the Basin. Do you have any data to support this assumption?
8-8	What is the reference for the compressibility data?
8-10	Worst case scenario is described as flow through 40 feet of the injection interval. If the field test indicated that only 40 feet of the formation is accepting fluid, how is the use of flow through 40 feet considered to worst case?
8-11	What data have been provided to show that the geologic materials are isotropic? In terms of defining lateral extent, it seems that a more conservative approach would be to assume anisotropic conditions.
8-14	The following statement: "The geologic analysis justifies the assumption of no earthquakes." is not consistent with data presented on Figure 5-15. Please correct this statement.
8-24	Question for IEPA: CFR Section 148.21.a.6 seems clear on requiring sensitivity analysis if input data for the model contributes significantly to the uncertainty. No sensitivity analysis is presented here. I believe their approach of all conservative values precludes need for sensitivity analysis, but I challenge some of their conservative assumptions (see comment for p. 8-10).
8-30	Dispersivity values do not match values listed on page 6-2. Need to reference and justify the values used. The dip angle was ignored due to its minor influence. This may be an acceptable assumption during active injection, but address this assumption for the 10,000 year migration scenario and the fact that there is a density difference between the injected and formation fluids.
8-32	The extent of waste movement is given, but what concentration is used to define the waste front?

Page No.	Comment
9-2	The cone of influence definition is not consistent with the definition on page 28134, Federal Register, 7/24/88.
9-8	Identify private sources of well information.
10-4*	Define "typical". Historical average or a range of values would be more appropriate.
10-5*	Are there any compounds in the waste which would catalyze the corrosion reactions for Hastelloy or the fiberglass reinforced epoxy?
10-7*	Dowell Epoxy Resin cement and diesel oil-- discuss operational experience which has demonstrated their respective chemical stability at this site.
10-8*	Identify the type of solution used in the swelling clay tests. Was a NaCl or other type of solution used to determine the impact of swelling clays? If a nonacidic solution were used for this test, how does one conclude that acid injection would not damage the formation?
11-1	Question for IEPA: In terms of timing, do the tests run in 11/87 meet the requirements of the petition demonstration?
	For the stationary slug test, identify the flow rate, tool sensitivity, and type and temperature of injected fluid.
	Based on the way the stationary test was run, determine the minimum leakage which could be detected. Perhaps setting the tool closer to the top of the packer is justified.
11-2*	Clarify date RAT was run: text indicates 11/25 and field print indicates 11/18.
Appendix 8-I	
General	Discuss and justify general modeling approach. It appears that conservative transport and one fluid density were assumed.
4	Did Clifford's work discuss gradients in the Mt. Simon in Ohio? If so, discuss the appropriateness of assuming such gradients for the Illinois Basin.
5	Was the specific gravity data used during calibration measured or calculated? Since surface pressures were used for calibration, input parameters for head loss in the tubing and well bore must be given. What data were used to calibrate the model-- maximum pressure, minimum pressure or some average value? Were strip chart records available?

Page No.	Comment
5	The selection of this time period, where only 8 data points are available seems suspect. Calibration with data from the initial injection test, may have been better for two reasons. During the initial test, nearly 700,000 gallons were injected compared to 136,700 gallons for the test used for calibration. In addition, it seems that more than 8 data points would be available for the initial test. Please justify the data used for model calibration.
6	Discuss why pH=2 contour was used to define waste movement. Would other hazardous waste components travel farther?
8	Show calculations. The results presented are not reproducible based on data in document.
9	Show calculations.
10	Provide reference for equation 2.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Facility Inspection Form for Compliance
with Underground Injection Control Requirements

Facility Name: LTV STEEL COMPANY
IEPA File Heading: LTV STEEL
Facility Address. Hennepin Works
P.O. Box 325
Hennepin, IL 61327
IEPA I.D. Number: 155801000 6
County: Putnam
U.S. EPA I.D. No.: ILD000181591
Facility Contact: Paul Schlingman
Inspector(s) Name: David S. Retzlaff
Title: General Supervisor-Operations Support Services
Well Name: WDW-1
Date of Inspection: 11/29/88

1. Well Classification

	Haz.	NH
Class I	✓	✓	—
Class II			
Class III			
Class IV			
Class V			

Comments:

2. Authorization

IEPA Permit:	✓	Permit Number: UIC-004-WI-IL
Authorization By Rule:		
Emergency Permit:		Permit Number:
Other:		

3. Operational Status

Operating:	
Standby:	✓
Inoperable:	

Comments: Injection events occur on weekends. The last event was on 11/27-28/88. Injected 98,900 gallons of acid and 5,240 gallons of water.

RECEIVED
DEC 9 1988
IEPA/DLPC

Remarks: On Tuesday, November 29, 1988 an Annual UIC inspection was conducted at LTV Steel's Hennepin Works.

I met Paul Schlingman at his office. I proceeded to go over his records (permit application, strip charts, maintenance records, analytical data). All appeared to be in order. We then went to the laboratory to look at the sampling sheets.

We then went to the treatment plant. The gauge and strip chart values were recorded and the operating records were checked.

A sample of Waste Pickle Liquor was collected. Chain of custody procedures were followed.

No violations were observed during this inspection.

DH:bls/0070E,sp

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6761

Refer to: 1558010006 -- Putnam County
LTV Steel
ILD000781591
U.I.C. Compliance File

July 19, 1988

LTV Steel Company - Hennepin Works
ATTN: Paul Schlingman
Hennepin, Illinois 61320

Dear Mr. Schlingman:

The Agency is in receipt of your July 6, 1988 response(s) to our June 23, 1988 Compliance Inquiry Letter. Your response(s) has been reviewed and the apparent violation(s) of Section(s) 702.141 is now considered resolved. Also, the letter you enclosed with your response and a conversation between John Richardson and Terese Laciak, of ARRO Laboratory, Inc., have clarified the matter regarding the reported values for Total Organic Halogens.

If you have any questions, please contact John Richardson at the number listed above.

Sincerely,

Angela Aye Tin

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Division of Land Pollution Control

AAT:JR:dls/2111j,23

cc: Division File
Rockford Region
Dave Retzlaff
Steve Gobelman
John Richardson

Jamis Richardson

LTV Steel Company

RESPONSE TO 6/23/88 CIL.

LTV

July 6, 1988

1558010006 - Putnam Co.
LTV Steel Co.
LLDCC-7815-91
UIC Compliance 7th

Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

Attention: Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section

Reference: UIC Compliance Inquiry Letter Dated June 23, 1988
IEPA No. 1558010006

Dear Ms. Aye Tin,

In response to the apparent violations as pointed out in your letter of June 23, 1988, we offer the following explanations.

Attachment A, Paragraph 1A - The concentration of zinc was reported as 167 mg/l. We have checked with the laboratory and can not fully explain the apparent high level of zinc. The appearance of this sample was not typical of previous waste pickle liquor samples, and therefore, we have concluded that a sampling anomaly may have occurred. We will check future samples closely to prevent reoccurrence. In addition, to assure future compliance, we are instituting a new QA/QC procedure of occasionally splitting samples and employing a second outside laboratory to perform analyses. Subsequent analyses of samples taken yielded levels of 16.4 and 8.0 mg/l zinc.

Attachment A, Paragraph 1B - This indicates that our monthly operating report for the month of May 1988 showed that the injection cycles may not have maintained their required differential pressure of at least 400 PSI. We have re-checked our charts and our pressure control equipment and have concluded that as the ambient temperature increased, the annulus pressure control equipment became slightly out of calibration. We have corrected this by increasing the annulus pressure set point to assure that the pressure will be higher than the required minimum of 400 PSI. We have also given specific operating instructions to the operating personnel that requires that they not totally rely on the control equipment. In addition, they will observe the differential pressure and take any necessary action to maintain the required 400 PSI differential settings.

RECEIVED

JUL 11 1988

IEPA-DLPC

We have also included with this letter the response from our contract laboratories to the question concerning the explanation to "appears all inorganic" to the values in our monthly reports for Total Organic Halogens. We presume that this explanation will answer your questions concerning the reported comments.

P.N. Schlingman, General Supervisor
Operations Support Services

cc: R.V. Norell
L.A. Szuhay
file

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IL D0 0 0 7 8 1 5 9 1 | Manifest Document No.: 0 0 0 0 1 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but items D, F, H and I are required by State law.

3. Generator's Name and Mailing Address
LTV Steel Company
Box 325
Hennepin, Illinois 61327 Att: P.N. Schlingman

4. Generator's Phone (815) 925-2133

A. State Manifest Document Number: INA 0252022
B. State Generator's ID: 1550105001

5. Transporter 1 Company Name: K.A. Steel Chemical Inc.
6. Use EPA ID Number: IN.D0.0.0.7.1.4.840
C. State Transporter's ID:
D. Transporter's Phone: 219-882-5776

7. Transporter 2 Company Name:
8. Use EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
K.A. Steel Chemicals
1 N. Buchanan, P.O. Box 478
Gary, Indiana 46402
10. Use EPA ID Number: IN.D0.0.0.7.1.4.840
G. State Facility's ID:
H. Facility's Phone: 219-882-5776

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, Waste, Hydrochloric Acid Mixture Corrosive Material (02), NA 1760	1	T	4368	G	K062
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above: T22

RECEIVED
ROCKFORD REGION
NOV 7 1988
ILL. E.P.A. — D.L.P.C.
STATE OF ILLINOIS

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR
Printed/Typed Name: Richard L. Galetti | Signature: Richard L Galetti | Date Month 11 Day 5 Year 88

TRANSPORTER
17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tom Welch | Signature: Tom Welch | Date Month 11 Day 5 Year 88

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Date Month . Day . Year .

FACILITY
19. Discrepancy Indication Space

RECEIVED
NOV 10 1988
IEPA-DLPC

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Brian Walden | Signature: | Date Month 11 Day 7 Year 88

In case of a spill call Indiana Office of Environmental Response at 317/243-5155 (day), or 317/633-0144 (night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 0252022

EPA Form 8700-22 (Rev. 9-86)
Previous editions are obsolete.
State Form 11865

DISTRIBUTION:
PAGE 1 (white) TSD MAIL TO GENERATOR
PAGE 2 (goldenrod) GENERATOR MAIL TO GENERATOR STATE
PAGE 3 (light green) TSD MAIL TO TSD STATE
PAGE 5 (light blue) TSD COPY
PAGE 6 (canary) GENERATOR COPY
PAGE 7 (white) TRANSPORTER 1 COPY

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law, but items D, F, H and I are required by State law.
IT D0 0 0 7 8 1 591	0 0 0 01		

3. Generator's Name and Mailing Address
LTV Steel Company
Box 325
Hennepin, Illinois 61327 Att: P.N. Schlingman
4. Generator's Phone (815) 925-2133

A. State Manifest Document Number: INA 0252021
B. State Generator's ID: 1550105001

5. Transporter 1 Company Name: K.A. Steel Chemical Inc.
6. Use EPA ID Number: IN D0 0 0 7 1 4 840
C. State Transporter's ID:
D. Transporter's Phone: 219-882-5776

7. Transporter 2 Company Name:
8. Use EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
K.A. Steel Chemicals
1 N. Buchanan, P.O. Box 478
Gary, Indiana 46402
10. Use EPA ID Number: IN D0 0 0 7 1 4 840
G. State Facility's ID:
H. Facility's Phone: 219-882-5776

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, Waste, Hydrochloric Acid Mixture Corrosive Material (02), NA 1760	1	T T	4408	G	K062
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above: T22

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: Richard L. Colotti
Signature: Richard L Colotti
Date: Month 10 Day 25 Year 88

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: K.A.S. GRANATA
Signature: K.A.S. Granata
Date: Month 10 Day 25 Year 88

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month . Day . Year .

FACILITY

19. Discrepancy Indication Space

RECEIVED
NOV 10 1988
IEPA-DLPC

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name: JOHN SCAGGS
Signature: John Scaggs
Date: Month 11 Day 2 Year 88

EPA Form 8700-22 (Rev. 9-86)
Previous editions are obsolete.
State Form 11865

DISTRIBUTION:
PAGE 1 (white) TSD MAIL TO GENERATOR
PAGE 2 (goldenrod) GENERATOR MAIL TO GENERATOR STATE
PAGE 3 (light green) TSD MAIL TO TSD STATE
PAGE 5 (light blue) TSD COPY
PAGE 6 (canary) GENERATOR COPY
PAGE 7 (white) TRANSPORTER 1 COPY

In case of a spill call Indiana Office of Environmental Response at 317/243-5155 (day), or 317/633-0144 (night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 0252021

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

217/782-6761

Certified # P 114 563 215

Refer to: 1558010006 -- Putnam County
LTV Steel
ILD000781591
Compliance File

U.I.C. COMPLIANCE INQUIRY LETTER

June 23, 1988

LTV Steel Company - Hennepin Works
Attn: Paul Schlingman
Hennepin, Illinois 61320

Dear Mr. Schlingman:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of 35 Ill. Adm. Code, Subtitle G and to inquire as to your position with respect to the apparent violations identified in Attachment A and your plans to correct these apparent violations. The Agency's findings of apparent non-compliance in Attachment A are based on a June 17, 1988 review of documents submitted to the Agency to demonstrate compliance with the requirements of Parts 702 and 730.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. These resolution dates are not to exceed 60 days from the date of the above referenced inspection and/or record review. The written response should be sent to the following:

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

In addition, please include an explanation of how your contract lab determined that the 22.08 percent of Total Organic Halogens, reported for the month of May, "appears all inorganic." This explanation should answer the question discussed in our phone conversation on June 15, 1988, regarding Total Organic Halogens in your April Operating Report.

Further, take notice that non-compliance with the requirements of the Illinois Environmental Protection Act and rules and regulations adopted thereunder may be the subject of enforcement action pursuant to the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec. 1001 et seq.

If you have any questions regarding the above, please contact John Richardson at the number listed above.

Sincerely,

Angela Aye Tin

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Division of Land Pollution Control

AAT:JR:jd/1722j/99-100

cc: Division File
Rockford Region
Dave Retzloff
Steve Gobelman
John Richardson

HAC
AAT

Attachment A

1. Pursuant to 35 Ill. Adm. Code Section 702.141, the permittee must comply with all conditions of his/her permit. Any permit noncompliance constitutes a violation of the Illinois Environmental Protection Act. You are in apparent violation of Section 702.141 for the following reasons:

   A) Section I. B. 1. c. of your facility's permit limits the concentration of zinc in the injected waste stream to 75 mg/L. The monthly operating report for May indicated that, for the week of May 8, 1988 through May 14, 1988, the concentration of zinc in the waste stream was 167 mg/L. This constitutes an apparent violation of your facility's permit condition governing waste parameters.

   B) Section I. B. 1. d. of your facility's permit requires that, during waste injection, the annulus pressure will be at least 400 psig greater than the tubing pressure. The monthly operating report for the month of May, 1988 indicated that, for the injection cycles that occurred on May 1, 8, 9, 15, 16, 22, 23, 29, and 30, the required pressure differential was not maintained. This constitutes an apparent violation of your facility's permit condition governing annulus protection.

AAT:JR:jd/1722j/101

Comp. # 15580/0006

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. †(Extra charge)†
2. ☐ Restricted Delivery †(Extra charge)† Jw 24

3. Article Addressed to:
LTV Steel Co.-Hennepin Works
attn: Paul Schlingman
Hennepin, Ill 61320

4. Article Number
P 594 563 218

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
6-27-88

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 DOMESTIC RETURN RECEIPT

attn: Paul Schlingman
P 594 563 218

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Jw 24

Sent to	LTV Steel Co. Hennepin Works
Street and No.	Hennepin Ill
P.O., State and ZIP Code	61320
Postage	$.25
Certified Fee	.85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.90
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$2.00
Postmark or Date	

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1983-403-517

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Division of Air Pollution Control--Field Operations Section

MEMORANDUM

TE: April 14, 1988

Date of Inspection: April 14, 1988

TO: M. Zamco-APC-Spfld

Last Insp. Date: May 1, 1987

FROM: R. Jennings/W. Kahila WK

Region/Distirct: II/201

SUBJECT: Facility: LTV Steel Company I.D. #: 155 801 AAA

Address: Box 325 Hennepin, Illinois 61327

Contact/Title: Paul Schlingman, Superintendent Phone: 925-2133

PRE-INVESTIGATION STATUS: Workplan - (U)A-1
INSPECTION FINDINGS: No Violation - TAS Checked
- Form 177

This facility is a cold rolling, annealing, pickling and galvanizing operation for coil steel. The coil steel is received by rail and shipped by rail and truck.

There is a continuous annealing line that has gas-fired burners. Following this is a galvanizing pit that is electrically heated. The majority of the emissions are nitrogen oxides from the burners on the annealing line. The NO_X emissions are about 40 tons per year actual. The burners are less than 250 million BTU per hour total and do not have an NO_X emission limit.

There are two cold rolling mills where the only emissions are oil mist. Each line has an oil mist collection device.

There is an acid pickling line that has an acid fume scrubber. The scrubber is a packed-bed wet scrubber.

There are two natural gas fired boilers. The major emission is NO_X at about 65 tons per year. Again, due to size and age, there is no NO_X emission limit.

There are also batch annealing furnaces and here also the major emission is NO_X at about 10 tons per year without an emission limit.

This year the anneal-galvanize line has been running fairly continuously and the cold rolling line have been operating about 80% of the time. Only one boiler is operated at a time.

All emission sources were inspected on this date. All emission sources have current operating permits.

RECEIVED
APR 21 1988
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
STATE OF ILLINOIS

WK/pm
0068F

cc W. Kahila
L. Benson
I.D. File 4/20/88

IL 532-1245
APC 422(Rev 7/86)

UIC - Field Operations

cl

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Facility Inspection Form for Compliance
with Underground Injection Control Requirements
(Permit and Inspection Fee Form)

Facility Name: LTV STEEL CO. IEPA File Heading: LTV Steel

Facility Address. Hennepin Works IEPA I.D. Number: 1558010006

P.O. Box 325 County: Putnam

Hennepin, IL 61327 U.S. EPA I.D. No.: ILD000781591

Facility Contact: Paul Schlingman Inspector(s) Name: David S. Retzlaff

Title: General Supervisor Operations Support Services

Well Name: WDW 1 Date of Inspection: April 26, 1988

1. Well Classification Haz. NH Time (From) 10:05a.m. (To) 10:50a.m.

Class I	✓	✓	
Class II			
Class III			
Class IV			
Class V			

Comments:

2. Authorization

IEPA Permit:	✓	Permit Number:	UIC-004-WI-IL
Authorization By Rule:			
Emergency Permit:		Permit Number:	
Other:			

3. Operational Status

Operating:	
Standby:	✓
Inoperable:	

Comments:

IEPA/DLPC
RECEIVED

IL 532-1926
LPC 215 11/85

	Yes	No	Value
4. Recording Devices			
a. Are continuous recording devices present/operating for: (730.113(b)(2))			
1. Injection Pressure*+	✓		21 psig
2. Injection Flow Rate*+	✓		000
3. Volume*+		✓	
4. Annulus Pressure*+	✓		461
5. Temperature	✓		71.176 + 2 = 93°
6. pH		✓	
7. Other (specify) ~~Annulus~~	✓		#1-10 + 2 = 80'
8. Other (specify)			
b. Are gauges present/operating for:			
1. Injection Pressure	✓		21
2. Injection Flow Rate	✓		000
3. Volume	✓		000
4. Annulus Pressure	✓		461
5. Temperature	✓		#1-76°F2 = 93°F
6. pH		✓	
7. Other (Specify) level	✓		#±0.01 + 2 = 8.0
8. Other (Specify)			
c. Are all of the above operating within permitted ranges?	✓		

Comments: _____

*Required for Class I wells
+Required for Authorization by Rule

7. Pre-Injection Storage Facilities and Transmission Lines

a. Storage Facilities

1. Type of Storage
   A. Tanks 2 - 150,000 Gallon Tanks
   B. Surface Impoundments ____

	Yes	No	Comment
b. Condition of Storage Facility			
1. Is adequate freeboard being maintained?	N/A	____	____
2. Are the dikes maintained to prevent leaks?	✓	____	____
3. Are the tanks maintained to prevent leaks?	✓	____	____
4. Is there evidence of past leaks?	____	✓	____
If so, what steps have been taken to correct and clean up the leak?			____

Comments: _____

_____

_____

	Yes	No	Comment
c. Tramission Lines			
1. Are transmission lines being maintained to prevent leaks?	✓	____	____
2. Is there evidence of past leaks?	____	✓	____
If so, what steps have been taken to correct and clean up the leak?			____

Comments: _____

_____

_____

	Yes	No	Comment
5. Reporting Requirements			
a. Are reports submitted at least quarterly to the Agency on: (730.113(c))			
1. the physical, chemical and other relevant characteristics of the injection fluids+	✓		monthly
2. the monthly average, maximum and minimum values for injection pressure, flow rate and volume and annulur pressure+	✓		monthly
3. monitor well data+	n/a		
b. Was the Agency notified within 24 hours of: (704.181(d))			
1. Any monitoring or other information which indicates that any contamination may cause an endangerment to a USDW+	n/a		
2. Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDW's.+	n/a		

Comments: _____

	Yes	No	Comment
6. Special Conditions			
a. Are all permit special conditions being met?	✓		

If no;
Explain: _____

Remarks: I (Dave Retzlaff) arrived at LTV Steel at 10:05 a.m. on April 26, 1988 to conduct a quarterly PIF inspection. I met with Paul Schlingman in his office. We proceeded to the treatment plant in order to inspect the well head, storage tanks, gauges and operating record. All were in order.

The last injection event occurred on April 24 & 25, 1988. A total of 129,000 gallons of acid and 5,300 gallons of water were injected over five shifts.

Filter unit #2 is still being reworked. The new control panel is operating.

Left site at 10:50 a.m.

DSR/bp
cc: DLPC/Rockford
John Richardson/Compliance

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

217/782-9720

LTV Steel
NPDES Permit No. IL0002631
Report of Compliance Sampling Inspection

March 25, 1988

LTV Steel
Hennepin
Illinois 61327

Gentlemen:

On January 21, 1988, an NPDES Compliance Inspection was conducted by personnel from the Rockford Regional Office. From the report supplied by the field inspector, it was noted that proper operation and maintenance was being provided.

This Agency would like to commend the operating staff for their efforts. Should any questions arise pertaining to this letter, please direct them to Jan Hopper at the above indicated telephone number.

Sincerely,

Kenneth R. Rogers, Manager
Compliance Assurance Section
Division of Water Pollution Control

KRR:JH:jas

cc: Compliance Assurance Section
Records Unit
FOS, Region 1 - Rockford

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

217/782-6761

Refer to: 0316500002 -- Cook County
LTV Steel Company
ILD056623598
Compliance File

COMPLIANCE INQUIRY LETTER

Certified # P 124 733 861

February 4, 1988

LTV Steel Company
Attn: Mr. Robert Voytko
3100 E. 45th Street
Cleveland, OH 44127

Dear Mr. Voytko:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of 35 Ill. Adm. Code Part 725 and to inquire as to your position with respect to the apparent violations identified in Attachment A and your plans to correct these apparent violations.

The Agency's findings of apparent non-compliance in Attachment A are based on a January 13, 1988 review of documents submitted to the Agency to demonstrate compliance with the requirements of Subpart H.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. The written response, and two copies of all documents submitted in reply to this letter, should be sent to the following:

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Further, take notice that non-compliance with the requirements of the Illinois Environmental Protection Act and rules and regulations adopted thereunder may be the subject of enforcement action pursuant to either the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec. 1001 et seq. or the federal Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sec. 6901 et seq.

If you have any questions regarding the above, please contact Andrew Vollmer at 217/782-6761.

Sincerely,

Angela Aye Tin

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Division of Land Pollution Control

AAT:AV:JR:tf/0304j,51

cc: Division File
Maywood Region
Gary King
Andy Vollmer
John Richardson

Attachment A

1. Pursuant to 35 Ill. Adm. Code 725.242(b), during the active life of the facility, the owner or operator shall adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with Section 725.243. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Agency as specified in Section 725.243(e)(5). The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business as specified in subsections (b)(1) and (b)(2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

   1. The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

   2. Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

   You are in apparent violation of 35 Ill. Adm. Code 725.242(b) for the following reason(s): You failed to update your closure cost as required.

2. Pursuant to 35 Ill. Adm. Code 725.243(b)(7), whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance as specified in this Section to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Agency.

   You are in apparent violation of 35 Ill. Adm. Code 725.243(b)(7) for the following reason(s): You failed to update your Financial Assurance document as required.

3. Pursuant to 35 Ill. Adm. Code 725.247(a), an owner or operator of a hazardous waste treatment, storage or disposal facility, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million,

exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in subsections (a)(1), (a)(2) and (a)(3).

You are in apparent violation of 35 Ill. Adm. Code 725.247(a) for the following reason(s): You failed to provide proof of liability coverage for sudden as required.

4. Pursuant to 35 Ill. Adm. Code 725.247(b), an owner or operator of a surface impoundment, landfill or land treatment facility which is used to manage hazardous waste, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in subsections (b)(1), (b)(2), and (b)(3).

You are in apparent violation of 35 Ill. Adm. Code 725.247(b) for the following reason(s): You failed to provide proof of liability coverage for non-sudden as required.

JR:tf/0304j.53-54

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

217/782-6761

Refer to: 1558010006 -- Putnam County
LTV Steel
ILD000781591
Compliance File

COMPLIANCE INQUIRY LETTER

Certified #

January 20, 1988

LTV Steel Company
Attention: Robert Voytko
3100 East 45th Street
Cleveland, Ohio 44127

Dear Mr. Voytko:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of 35 Ill. Adm. Code Part 725 and to inquire as to your position with respect to the apparent violations identified in Attachment A and your plans to correct these apparent violations. The Agency's findings of apparent non-compliance in Attachment A are based on a January 13, 1988 review of documents submitted to the Agency to demonstrate compliance with the requirements of Subpart H.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. The written response, and two copies of all documents submitted in reply to this letter, should be sent to the following:

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Further, take notice that because some or all of the apparent violations cited constitute high priority violations (HPVs), in accordance with the USEPA Enforcement Response Policy this matter is being referred to USEPA Region 5 or the Illinois Attorney General's Office to seek assessment of a penalty pursuant to either the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec. 1001 et seq. or the federal Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sec. 6901 et seq.

If you have any questions regarding the above, please contact Andrew Vollmer at 217/782-9884.

Sincerely,

Angela Aye Tin

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Division of Land Pollution Control

AAT:AV:GDS:jk/170j,6-7

cc: Division File
Rockford Region
Gary King
Dave Retzlaff
Geordie Smith
Andy Vollmer
USEPA Region V

Attachment A

1. Pursuant to 35 Ill. Adm. Code 725.242(b), during the active life of the facility, the owner or operator shall adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with Section 725.243. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Agency as specified in Section 725.243(e)(5). The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business as specified in subsections (b)(1) and (b)(2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

   1. The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

   2. Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

You are in apparent violation of 35 Ill. Adm. Code 725.242(b) for the following reason(s): you failed to update your closure cost as required.

2. Pursuant to 35 Ill. Adm. Code 725.243(b)(4), the bond must guarantee that the owner or operator will:

   A. Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

   B. Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin final closure is issued by the Board or a U.S. district court or other court of competent jurisdiction; or

   C. Provide alternate financial assurance as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.

You are in apparent violation of 35 Ill. Adm. Code 725.243(b)(4) for the following reason(s): you failed to update your financial assurance document as required.

3. Pursuant to 35 Ill. Adm. Code 724.251, the Agency shall promulgate standardized forms based on 40 CFR 264.151 with such changes in wording as are necessary under Illinois law. Any owner or operator required to establish financial assurance under this Subpart shall do so only upon the standardized forms promulgated by the Agency. The Agency shall reject any financial assurance document which is not submitted on such standardized forms. The Agency has rejected your financial assurance document(s) for failure to use the Illinois standardized forms. Your insurance certificate is a photocopy, and photocopies are not acceptable.

AAT:AV:GDS:jk/170j,8-9

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

217/782-6761

Refer to: 1558010006 -- Putnam County
LTV Steel Co.
ILD000781591
UIC Compliance File

December 8, 1987

LTV Steel Company
Hennepin Works
Attention: Mr. Paul Schlingman
Post Office Box 325
Hennepin, Illinois 61327

Dear Mr. Schlingman:

On November 18, 1987 your facility was inspected by David S. Retzlaff of the Illinois Environmental Protection Agency. The purpose of this inspection was to determine your facility's compliance with 35 Illinois Administrative Code, Part 702, Subpart(s) B, C and D, Part 704, Subpart C, and Part 730, Subparts A and B. At the time of the inspection, no apparent violations of the requirements addressed as part of the inspection were observed.

For your information a copy of the inspection report is enclosed. Should you have any questions regarding the inspection, please contact David S. Retzlaff at 815/987-7404.

Sincerely,

Angela Aye Tin

Angela Aye Tin, Manager
Technical Compliance Unit
Compliance Section
Division of Land Pollution Control

AAT:DSR:BF:rd4500g/43

Enclosure

cc: Division File
Rockford Region
Geordie Smith
Bur Filson
Steve Gobelman

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

MEMORANDUM

DATE: December 11, 1987

TO: Division File

FROM: Bur Filson

SUBJECT: 1558010006 -- Putnam County
LTV Steel
UIC Mechanical Ingrity Test File

On November 18, 1987 the subject facility conducted a pressure test on the annulus of WDW #1. The annulus was pressured to 999 psig, and a four (4) hour test followed. Listed below are the pressure reading taken at thirty (30) minute intervals during the test:

0 min.	999 psig	% decline per 30 minute period
30 min.	976 psig	2.3 % decline
60 min.	960 psig	1.6 % decline
90 min.	949 psig	1.1 % decline
120 min.	935 psig	1.4 % decline
150 min.	925 psig	1.0 % decline
180 min.	911 psig	1.5 % decline
210 min.	896 psig	1.6 % decline
240 min.	885 psig	1.2 % decline

Attached are the pressure readings taken every minute during the pressure test.

BF:rmi/4505g/47

cc: Division UIC File
Rockford Region
Steve Gobelman
Angela Tin

C to Region V
THEN to Michelle T.

LTV Steel Company

October 12, 1987

Harry A. Chappel, P.E., Acting Manager
Facilities Compliance Unit
Compliance Monitoring Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

Re: 1558010001 -- Putnam County
Hennepin/LTV Steel Co.
ILD000781591
Compliance Inquiry Letter (9/17/87)

Dear Mr. Chappel:

I am responding to your September 17, 1987 Compliance Inquiry Letter (CIL) regarding LTV Steel Company's Hennepin Works. The alleged violation concerns the purported failure to certify closure of a hazardous waste facility.

Because LTV Steel has not closed any hazardous waste TSD facility at the Hennepin Works, I discussed this matter with Gene Dingledine and Karen Nachtway to ascertain the reason for the CIL. Apparently, the inquiry relates to the spent pickle liquor storage tanks at the facility. These storage tanks are used for temporary (less than 90 day) storage, and have not been closed. Accordingly, it appears that the CIL is in error. If such is not the case, please let me know immediately.

By way of background, LTV Steel (then, Jones & Laughlin Steel Incorporated) originally submitted a Part A permit application for the Hennepin Works underground injection disposal well (deep well) and three spent pickle liquor storage tanks, which have a total capacity of 330,000 gallons. Although the storage tanks were included in the original Part A, they always have been used for less-than-90-day storage, and they were included in the application only as a "protective filing," to preserve interim status.

As required by the RCRA regulations, and at the request of the U.S. EPA and Illinois EPA, LTV Steel developed a closure plan, which contemplated shutdown of the facility and the dismantling and removal of the tanks from service. That closure plan was approved by both the U.S. EPA and the Illinois EPA.

It has never been LTV Steel's intention to remove and dismantle the tanks, except in the event of plant shutdown, which is not currently contemplated.

Recently, LTV Steel was issued a UIC permit, and the deep well is no longer subject to the original Part A application (interim status). Because the storage tanks are not, and never have been, subject to regulation under state or federal hazardous waste regulations, there are no longer any regulated facilities subject to LTV Steel's original application.

LTV Steel has previously submitted a RCRA permit withdrawal request. LTV Steel hereby requests that IEPA take action on the withdrawal or advise it as to any additional information that is necessary to act on this matter.

Please contact Mr. Larry Szuhay of LTV Steel's Corporate Environmental Control Department at 216-429-6475 or me at 216-622-5628 should you wish.

Very truly yours,

Lee E. Larson

LEL:cf

Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706

217/782-6761

Refer to: 1558010001 -- Putnam County
Hennepin/LTV Steel Co.
ILD000781591
Compliance File

COMPLIANCE INQUIRY LETTER

Certified # P 594 562 158

September 17, 1987

LTV Steel Company
Attention: Paul Schlingman
P.O. Box 325
Hennepin, Illinois 61327

Dear Mr. Schlingman:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of 35 Ill. Adm. Code Part 725, Subpart G and to inquire as to your position with respect to the apparent violations identified in Attachment A and your plans to correct these apparent violations. The Agency's findings of apparent non-compliance in Attachment A are based on a June 26, 1987 review of documents submitted to the Agency to demonstrate compliance with the requirements of Subpart G.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. The written response, and two copies of all documents submitted in reply to this letter, should be sent to the following:

Harry A. Chappel, P.E., Acting Manager
Facilities Compliance Unit
Compliance Monitoring Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Further, take notice that because some or all of the apparent violations cited constitute high priority violations (HPVs), in accordance with the USEPA Enforcement Response Policy this matter is being referred to USEPA Region 5 or the Illinois Attorney General's Office to seek assessment of a penalty pursuant to either the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec. 1001 et seq. or the federal Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sec. 6901 et seq.

If you have any questions regarding the above, please contact Gene Dingledine at 217/782-6761.

Sincerely,

Harry A. Chappel, P.E., Acting Manager
Facilities Compliance Unit
Compliance Monitoring Section
Division of Land Pollution Control

HAC:GDS:ba/2968g/42-43

cc: Division File
Rockford Region
Gary King
Gene Dingledine
Geordie Smith
USEPA Region V

Attachment A

1. Pursuant to 35 Ill. Adm. Code 725.215, within 60 days after completion of closure of each hazardous waste surface impoundment, waste pile, land treatment and landfill unit, and within 60 days after completion of final closure, the owner or operator shall submit to the Agency, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request until the Agency releases the owner or operator from the financial assurance requirements for closure under Section 725.243(h).

   You are in apparent violation of 35 Ill. Adm. Code 725.215 for the following reason(s): You failed to provide the required certification.

HAC:GDS:ba/2968g/44

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

217/782-6761

Refer to: 1558010001 -- Putnam County
LTV Steel Company
ILD000781591
Compliance File

PRE-ENFORCEMENT CONFERENCE LETTER

Certified #

August 27, 1987

LTV Steel Company
Attn: Mr. Paul Schlingman
Hennepin Works
Hennepin, IL 61320

Dear Mr. Schlingman:

The Agency has previously informed LTV Steel Company of apparent violations of the Illinois Environmental Protection Act and/or rules and regulations adopted thereunder. These apparent violations are set forth in Attachment A

As a result of these apparent violations, it is our intent to refer this matter to the Agency's legal staff for the preparation of a formal enforcement case. The Agency's legal staff will, in turn, refer this matter to the Office of Attorney General or to the United States Environmental Protection Agency for the filing of a formal complaint.

Prior to taking such action, however, you are requested to attend a Pre-Enforcement Conference to be held at 4302 North Main Street, Rockford, Illinois. The purpose of this Conference will be:

1. To discuss the validity of the apparent violations noted by Agency staff, and

2. To arrive at a program to eliminate existing and/or future violations.

You should, therefore, bring such personnel and records to the conference as will enable a complete discussion of the above items. We have scheduled the Conference for September 16, 1987, at 1:30 p.m. If this arrangement is inconvenient, please contact David S. Retzlaff at 815/987-7404 to arrange for an alternative date and time.

In addition, please be advised that this letter constitutes the notice required by Section 31(d) of the Illinois Environmental Protection Act prior to the filing of a formal complaint. The cited Section of the Illinois

Environmental Protection Act requires the Agency to inform you of the charges which are to be alleged and offer you the opportunity to meet with appropriate officials within thirty days of this notice date in an effort to resolve such conflict which could lead to the filing of formal action.

Sincerely,

Harry A. Chappel, P.E., Manager
Compliance Monitoring Section
Division of Land Pollution Control

HAC:DSR:mab/3439g/38-39

Attachment

cc: Division File
Region 1
Geordie Smith
Steven Strauss

ATTACHMENT A

1. Pursuant to 35 Ill. Adm. Code 703.152(a), if any owner or operator of a HWM facility has already filed Part A of a permit application and has not yet filed Part B, then the owner or operator shall file an amended Part A application with the Agency:

   1. Within six months after the effective date of revised regulations under 35 Ill. Adm. Code 721 listing or identifying additional hazardous wastes, if the facility is treating, storing or disposing of any of those newly listed or identified wastes.

   2. As necessary to comply with provisions of Section 703.155 for changes during interim status.

   You are in apparent violation of 35 Ill. Adm. Code 703.152(a) for the following reason(s): LTV Steel Company did not file an amended Part A application with the Agency as necessary to comply with provisions of Section 703.155 for changes during interim status.

2. Pursuant to 35 Ill. Adm. Code 703.155(d), changes in the ownership or operational control of a facility may be made if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of 35 Ill. Adm. Code 725, Subpart H (financial requirements), until the new owner or operator has demonstrated to the Agency that it is complying with that Subpart. All other interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility. Upon demonstration to the Agency by the new owner or operator of compliance with that Subpart, the Agency shall notify the old owner or operator in writing that it no longer needs to comply with that Part as of the date of demonstration.

   You are in apparent violation of 35 Ill. Adm. Code 703.155(d) for the following reason(s): A revised Part A permit application was not submitted 90 days prior to the change in operational control from Jones & Laughlin Steel Corporation Pittsburg, PA to LTV Steel Company Cleveland, OH.

DSR:mab/3439g/40

C2

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Facility Inspection Form for Compliance
with Underground Injection Control Requirements
(Permit and Inspection Fee Form)

Facility Name: LTV Steel Company
IEPA File Heading: LTV Steel

Facility Address. Hennepin Works
P.O. Box 325
Hennepin, IL 61327

IEPA I.D. Number: 1558010006
County: Putnam
U.S. EPA I.D. No.: ILD000781591

Facility Contact: Paul Schlingman
Title: Gen. Supr. Combustion & Utilities

Inspector(s) Name: David S. Retzlaff

Well Name: WDW 1

Date of Inspection: September 11, 1987

1. Well Classification

Time (From) 10:10 a.m. (To) 11:07 a.m.

	Haz.	NH
Class I	✓	✓	
Class II			
Class III			
Class IV			
Class V			

Comments:

2. Authorization

IEPA Permit:	✓	Permit Number: UIC-004-WI-IL
Authorization By Rule:		
Emergency Permit:		Permit Number:
Other:		

3. Operational Status

Operating:	
Standby:	✓
Inoperable:	

Comments: The last injection event was completed on 9/10/87. 120,000 gallons of acid was injected followed by 4400 gallons of water.

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IEPA/DLPC

IL 532-1426
LPC 215 11/85

	Yes	No	Value
4. Recording Devices			
a. Are continuous recording devices present/operating for: (730.113(b)(2))			
1. Injection Pressure*+	✓		20 psig
2. Injection Flow Rate*+	✓		0
3. Volume*+		✓	
4. Annulus Pressure*+	✓		484 psig
5. Temperature	✓		#1 = 98°F, #2 =
6. pH		✓	
7. Other (specify) _____			
8. Other (specify) _____			
b. Are gauges present/operating for:			
1. Injection Pressure	✓		20 psig
2. Injection Flow Rate	✓		0
3. Volume		✓	
4. Annulus Pressure	✓		484 psig
5. Temperature		✓	
6. pH		✓	
7. Other (Specify) Tanklevels	✓		Tank #1 = 4.9' #2 = empty
8. Other (Specify) _____			
c. Are all of the above operating within permitted ranges?	✓		

Comments: _____

*Required for Class I wells
+Required for Authorization by Rule

	Yes	No	Comment
5. Reporting Requirements			
a. Are reports submitted at least quarterly to the Agency on: (730.113(c))			
1. the physical, chemical and other relevant characteristics of the injection fluids+	✓		
2. the monthly average, maximum and minimum values for injection pressure, flow rate and volume and annulur pressure+	✓		
3. monitor well data+	N/A		
b. Was the Agency notified within 24 hours of: (704.181(d))			
1. Any monitoring or other information which indicates that any contamination may cause an endangerment to a USDW+	N/A		
2. Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDW's.+	N/A		

Comments: _____

	Yes	No	Comment
6. Special Conditions			
a. Are all permit special conditions being met?	✓		

If no;
Explain: _____

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SEP 16 1987
IEPA/DLPC

7. Pre-Injection Storage Facilities and Transmission Lines

a. Storage Facilities

1. Type of Storage
   A. Tanks 2 - 150,000 gallon tanks.
   B. Surface Impoundments ____

	Yes	No	Comment
b. Condition of Storage Facility			
1. Is adequate freeboard being maintained?	N/A	____	____
2. Are the dikes maintained to prevent leaks?	✓	____	____
3. Are the tanks maintained to prevent leaks?	✓	____	____
4. Is there evidence of past leaks?	____	✓	____
If so, what steps have been taken to correct and clean up the leak?			____

Comments: ____

	Yes	No	Comment
c. Tramission Lines			
1. Are transmission lines being maintained to prevent leaks?	✓	____	____
2. Is there evidence of past leaks?	____	✓	____
If so, what steps have been taken to correct and clean up the leak?			____

Comments: ____

emarks: I met with Paul Schlingman in his office and inspected the recent monthly reports and chemical analyses.

We proceeded down to the treatment plant. One of the storage tanks was recently relined. The other tank is currently being relined. Therefore, waste is being injected more often than must on weekends, which is the normal procedure.

Everything appeared to be in order.

I left the site at 11:07 a.m.

JH:bls/0070E,sp

LTV Steel Company

Michelle M.T.

July 31, 1987

Harry A. Chappel, P.E., Acting Manager
Facilities Compliance Unit
Compliance Monitoring Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Re: Compliance Inquiry Letter

Dear Mr. Chappel:

I am responding separately to numbered paragraphs 1 and 2 of Attachment A to your July 16, 1987 Compliance Inquiry Letter directed to Mr. Paul Schlingman at LTV Steel's Hennepin Works.

There has been no change in the ownership or operational control of the Hennepin Works since the Part A permit application was filed (November 7, 1980). The original permit application was filed by Jones & Laughlin Steel Incorporated, a wholly-owned subsidiary of The LTV Corporation. In June, 1984, The LTV Corporation acquired Republic Steel Corporation by merger. Thereafter, the operations of Republic and J&L were combined under the new name, LTV Steel Company, Inc.

If you have any further questions, please call me at (216) 622-5628.

Very truly yours,

Lee E. Larson

LEL:cf

cc: P.N. Schlingman
L.A. Szuhay
R.A. Voytko
T.A. Zalenski

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RESPONSE TO 7/16/87 CIL

X C to Reg V
Cindy Davis
+ Hand to MT
File

LTV Steel Company

LTV

155 0105001 - Putnam Co.
LTV Steel Co.
ILD000781591
Compliance File

July 31, 1987

Harry A. Chappel, P.E., Acting Manager
Facilities Compliance Unit
Compliance Monitoring Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Dear Mr. Chappel

Our response to your letter dated July 16, 1987, paragraphs No. 1 and 2 of attachment "A" have been made by our Mr. Lee E. Larson under separate copy.

In response to your paragraph No. 3, attachment "A" of the subject letter, efforts to reduce the volume and toxicity of spent pickle liquor generated at the subject facility include the following:

- o implementation of Integrated Process Control (IPC) techniques to identify and maintain optimum operating parameters in the interest of minimizing pickle liquor usage and maximizing product quality.

- o on-going evaluation of economically practicable methods of usage, storage and disposal of waste to minimize threat to human health and the environment.

Although LTV Steel's efforts may be nearing the lower limit of technical feasibility in terms of quantity/concentration of pickle liquor required - which directly influences the quantity/toxicity of spent pickle liquor generated - the efforts previously described have reduced the quantity of spent pickle liquor are shown in the following table:

Year	Spent Pickle Liquor gal/ton*
1986	6.7
1985	7.2
1984	7.2

Further efforts in this area are expected.

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IEPA-DLPC

In response to paragraph No. 4 of attachment "A" of the subject letter, I contacted your representative Mr. David S. Retzlaff and discussed with him what he believed to be an omission of our contingency plan submittal to the local agencies. Mr. Retzlaff apparently overlooked our record of this submittal during his inspection and I have mailed to him a copy of this submittal which was made back in 1980 and I believe that he now feels that this requirement is indeed satisfied.

If you have any further questions concerning these items, please call me at Area Code 815-925-2133.

P.N. Schlingman, General Supervisor
Utilities and Environment

/ch
UTIL5

cc: L.A. Szuhay
R.A. Voytko
T.A. Zalenski
L.E. Larson
file

ILLINOIS POLLUTION CONTROL BOARD
June 10, 1987

LTV STEEL COMPANY, Petitioner,	)	
v.	)	PCB 87-68
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	

ORDER OF THE BOARD (by J.D. Dumelle):

This matter comes before the Board upon a June 8, 1987, Motion for Extension of Time to Respond to Board Order of May 28, 1987, filed by the Illinois Environmental Protection Agency (Agency). The Board's May 28, 1987, Order requested the parties to file briefs on or before June 9, 1987. Because the Agency did not receive a copy of this Order until June 5, 1987, the Agency requests an extension of time until June 12, 1987, within which to fully prepare and submit its brief. The Agency's motion is hereby granted.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Order was adopted on the 10th day of June, 1987 by a vote of 6-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

55

RCRA INSPECTION REPORT - INTERIM STATUS STANDARDS
TREATMENT, STORAGE, AND DISPOSAL FACILITIES
Form A General Facility Standards

C1

I. General Information

USEPA Number: ILD000781591 IEPA Number: 1558010001

LDF Facility: YES (NO) Notified As: G, Storage, UIC Regulated As: G, Storage, UIC

(A) Facility Name: LTV Steel Co. - Hennepin Works

(B) Street: State Route 71

(C) City: Hennepin (D) State: Illinois (E) Zip Code: 61327

(F) Phone: 815/925-2133 (G) County: Putnam

(H) Operator: LTV Steel Co.

(I) Street: LTV Steel Building - 25 Prospect Avenue NW

(J) City: Cleveland (K) State: Ohio (L) Zip Code: 44115

(M) Phone: 216/622-5000 (N) County: Cuyahoga

(O) Owner: LTV Steel Co

(P) Street: LTV Steel Building - 25 Prospect Avenue NW

(Q) City: Cleveland (R) State: Ohio (S) Zip Code: 44115

(T) Phone: 216/622-5000 (U) County: Cuyahoga

Region: R (V) Date of Inspection: 08 / 13 / 86 (W) Time: (From) 10:30 (To) 12:45 pm

Type of Inspection: (ISS) RECORD REVIEW SAMPLING CITIZEN COMPLAINT
CLOSED WITHDRAWAL OTHER PART B
F/U ____/____/____ (Date of Initial Inspection)

(X) Weather Conditions: Cloudy - 75° F

Area	Section	Class I	Class II
TOTAL Class I's & II's		0	0

(AA) Preparer Information

Name
David S. Retzlaff

Agency/Title
IEPA/Env. Prot. Specialist

Telephone
815/987-7404

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V-539-12k3

(Y) Person(s) Interviewed	Title	Telephone
Paul Schlingman	General Superintendent, Combustion and Utilities	815/925-2133

(Z) Inspection Participants	Agency/Title	Telephone
David S. Retzlaff	IEPA/Env. Prot. Specialist	815/987-7404
John Cooper	USEPA/Hydrologist - Haz. Waste Enforcement Branch - Region V	312/886-4464

II. Section A: Scope of Inspection.

1. Interim Status standards for the treatment, storage or disposal of HAZARDOUS WASTES SUBJECT TO 35 Ill. Adm. Code 725.101. Complete Inspection Form A, Sections B, C, D, E, and G.

2. Place an "X" in the box(es) corresponding to the facility's treatment, storage or disposal processes, and generation and/or transportation activity (if any). Complete only the applicable sections and appendixes.

Permit application process(es) (EPA Form 3510-3)			Inspection Form A section(s)
S01	☐	storage in containers	I
S02	☒	storage in tanks	J
T01	☐	treatment in tanks	J
S04	☐	storage in surface impoundment	K, F
T02	☐	treatment in surface impoundment	K, F
D83	☐	disposal in surface impoundment	K, F
S03	☐	storage in waste pile	L
D81	☐	disposal by land application	M, F
D80	☐	disposal in landfill	N, F
T03	☐	treatment by incineration	O, P
T04	☐	treatment in devices other than tanks, surface impoundments, or incinerators	Q

Other Activities

GENERATOR	☒	APPENDIX	GN
TRANSPORTER	☐	APPENDIX	TR

3. Indicate any hazardous waste processes, by process code, which have been omitted from Part A of the facility's permit application.

4. Indicate any hazardous waste processes (by process code and line number on EPA Form 3510-3 page 1 of 5) which appear to be eligible for exclusion per 35 Ill. Adm. Code 725.101(c). Provide a brief rationale for the possible exclusion.

RECEIVED

AUG 20 1986

IEPA DLPC

REMARKS

Use this section to briefly describe site activities observed at the time of the inspection. Note any possible violations of Interim Status Standards.

The purpose of this visit was to conduct a RCRA-CEI inspection of LTV Steel. I arrived at the facility at 10:30 a.m. on August 13, 1986. I met John Cooper of USEPA-Region V. John's purpose was to conduct an oversight inspection (to evaluate my performance).

We proceeded to Paul Schlingman's office. In Mr. Schlingman's office I reviewed his waste analysis and plan, security measures, personnel training records, contingency plan and manifests. All were in order.

We proceeded to the pickling line, then to the storage tanks. No irregularities were observed.

At the treatment plant I was able to inspect the emergency and safety equipment, operating records and inspection logs.

No violations were observed during this inspection.

I left site at 12:45 p.m.

ls